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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,027	07/31/2003	Andrew J. Ries	P-10955.00	9666
27581	7590	03/22/2006	EXAMINER	
MEDTRONIC, INC. 710 MEDTRONIC PARK MINNEAPOLIS, MN 55432-9924			MULLEN, KRISTEN DROESCH	
			ART UNIT	PAPER NUMBER
			3766	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/632,027

Applicant(s)

REIS ET AL.

Examiner

Kristen Mullen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/6/03 (IDS).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/6/03</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
|--|--|

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: INTEGRATED CONDUCTIVE ELEMENT AND ELASTOMERIC SEAL.

2. The abstract of the disclosure is objected to because it utilizes phrases that can be implied such as "the invention". Correction is required. See MPEP § 608.01(b).
3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. *It should avoid using phrases which can be implied*, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The specification contains references to commonly owned patent applications without application numbers. The examiner respectfully requests that this information be updated along with any other referenced applications without application numbers.
5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "IS-4 standard".

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6. The disclosure is objected to because of the following informalities: page 10, paragraph [0048], line 3, and paragraph [0050], line 3 contain the word “electrometric” instead of --elastomeric--.

Appropriate correction is required.

Claim Objections

7. Claims 3, 8 and 15 are objected to because of the following informalities: “electrometric” should be changed to --elastomeric--.

8. Claim 21 is objected to because of the following informalities: it is missing connecting words between “element bending” and “defined the hole”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 5-6, 10, 12-13, 17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Stutz, Jr. (5,413,595).

Regarding claims 1, 6, 12, 13 and 19, Stutz shows a housing (22); circuitry within the housing; a connector module (24) connected to the housing and including a structure formed with a channel and defining an access hole (26) to the channel; a medical lead (30); and an

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electrical connector assembly positioned in the channel, the electrical connector assembly including an elastomeric element (122) defining a hole, and a conductive element (124, 140) conforming to an end of the elastomeric element such that upon insertion of the medical lead through the hole, the conductive element electrically couples to an electrical contact element of the medical lead (Figs. 1, 6-8).

With respect to claims 5, 10 and 17, Stutz shows the elastomeric element (122) can bias the conductive element (124, 140) against the medical lead (Figs. 6-8).

The statements of intended use have been carefully considered but are not considered to impart any further structural limitations over the prior art. In particular, the statement that the connector module conforms to an IS-4 standard does not impart any structural limitations over the prior art.

11. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Bischoff et al. (5,843,141). Bischoff shows a method comprising: forming a conductive element (50, 52, 54, 56) forming an elastomeric element to include a seal ring inside a hole (58, 60, 62, 64); and assembling the conductive element to an end of the elastomeric element (Fig. 2).

12. Claims 1-2, 6-7, 11-14, 18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Hansen et al (2004/0034393).

Regarding claims 1, 6 and 13, Hansen shows a housing (12); circuitry within the housing; a connector module (16) connected to the housing and including a structure formed with a channel and defining an access hole (24) to the channel; a medical lead (26); and an electrical connector assembly positioned in the channel, the electrical connector assembly including an elastomeric element (44) defining a hole (46), and a conductive element (34) conforming to an

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end of the elastomeric element such that upon insertion of the medical lead through the hole, the conductive element electrically couples to an electrical contact element of the medical lead (Figs. 1-2, 3A, 3B, 4A, 4B, 6).

With respect to claims 2, 7 and 14, Hansen further shows the elastomeric element (44) is formed with a seal ring (52) inside the hole (Figs. 4A, 4B).

Regarding claims 11 and 18, Hansen further shows a plurality of access holes (30-33) to the channel; and a plurality of electrical connector assemblies (44) positioned in the channel, wherein following insertion of the medical lead a plurality of in-line electrical contacts of the medical lead electrically couple respectively to the plurality of electrical connector assemblies (Figs. 1, 6).

Regarding claim 20, Hansen shows a method comprising: forming a conductive element (34) forming an elastomeric element (44) to include a seal ring (52) inside a hole; and assembling the conductive element to an end of the elastomeric element (Figs. 1-2, 3A, 3B, 4A, 4B, 6).

The statements of intended use have been carefully considered but are not considered to impart any further structural limitations over the prior art. In particular, the statement that the connector module conforms to an IS-4 standard does not impart any structural limitations over the prior art.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 3-4, 8-9 15-16 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen et al. (2004/0034393) as applied to claims 1, 6 and 13 and further in view of Tvaska et al. (2004/0167582).

Regarding claims 3-4, 8-9 and 15-16, Hansen is as explained before. Although Hansen fails to show the conductive element comprises a conductive ring with tab-like elements, attention is directed to Tvaska who explicitly teaches utilizing a conductive ring with tab-like elements extending radially inward, the ring fitting about the end of the elastomeric element, the tab-like elements being bent and form J-shapes in the device of Hansen (Figs 1-5; paras. [0007],[0022]). Tvaska teaches that utilizing a conductive ring with tab-like elements is more advantageous than the prior art spring conductive elements of Hansen because the prior art spring conductive elements are prone to high contact resistance (paras. [0008]-[0009]). Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the device of Hansen to replace the spring conductive elements of Hansen with the conductive ring with tab-like elements since Tvaska explicitly teaches such modification and because it is more advantageous to use the conductive ring with tab-like elements rather than the prior art spring conductive elements which are prone to high contact resistance.

With respect to claims 21-22, Hansen is as explained before. Although Hansen fails to show forming the conductive element as a conductive ring with tab-like elements, attention is directed to Tvaska who explicitly teaches forming a conductive ring with tab-like elements extending radially inward and assembling the conductive element to the end of the elastomeric element and bending the tab-like elements to form J-shapes with the method of assembling the device of Hansen (Figs 1-5; paras. [0007],[0022]). Tvaska teaches that utilizing a conductive ring with tab-like elements is more advantageous than the prior art spring conductive elements of Hansen because the prior art spring conductive elements are prone to high contact resistance (paras. [0008]-[0009]). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the method of Hansen to include forming a conductive ring with tab-like elements extending radially inward and assembling the conductive element to the end of the elastomeric element and bending the tab-like elements to form J-shapes since Tvaska explicitly teaches such modification and because it is more advantageous to use the conductive ring with tab-like elements rather than the prior art spring conductive elements which are prone to high contact resistance.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Peters et al. (6,430,442) shows a connector ring assembly that is biased by a superelastic metal (NiTi) retainer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristen Mullen whose telephone number is (571) 272-4944. The examiner can normally be reached on M-F, 10:30 am-6:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristen Mullen
Patent Examiner
Art Unit 3766

kdm

A handwritten signature in black ink that reads "Kristen Mullen". The signature is written in a cursive, flowing style.